

Statement

James M. Walker, Jr.
Director, Alabama Department of Homeland Security

House Committee on Homeland Security
Subcommittee on Management, Investigations, and Oversight

“Ready to lead? DHS and the Next Major Catastrophe.”

June 11, 2008

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Mr. Chairman and Members of the Committee, thank you for the opportunity to appear before you today representing state and local interests during this important hearing.

As Director of the Alabama Department of Homeland Security, it is my responsibility to manage the homeland security preparedness programs and initiatives Governor Bob Riley wants in place to serve Alabama's citizens and communities. During these past five years of the Riley administration in Alabama, our state has seen exponential improvements in first responder capabilities, citizen preparedness, and situational awareness.

Alabama has suffered the wrath of three major hurricanes and a tropical storm in the past five years. Each storm allowed us to learn valuable lessons about what it takes to manage a catastrophe on a broad scale. In every instance, we reviewed our tactics, techniques, and procedures with experience as our guide and made adjustments as required. Just recently,

Governor Riley declared that Alabama is as ready as it has ever been for the start of yet another hurricane season.

Alabama's current high state of preparedness is due to many factors. First, the federal homeland security grants appropriated by the Congress and awarded to each state by the US Department of Homeland Security have proved invaluable to Alabama, and to every other state and territory in our country. These appropriations have allowed us to build much-needed homeland security capabilities, better equip our first responders, train and exercise our techniques and procedures, and engage our citizens in ways never before possible.

The success of these grants, I believe, is rooted in the idea that 99% of the heavy lifting to protect and manage disasters in our country is done outside the D.C. Beltway at the state and local level by the thousands of men and women who strap on their equipment every day to keep the cities and streets of America safe. Any investment we can make in state and local first responders and citizen preparedness is a sound one.

I cannot thank the Congress enough for its leadership in continuing to appropriate homeland security dollars to Main

Street, Alabama and all around the country. However, I would like to make two points about homeland security grants. First, please continue the annual appropriation of homeland security dollars to our states and territories. They have made an enormous and positive impact in Alabama, but there is still much, much more that needs to be done.

Second, factor predictability into the grants and give governors and state homeland security directors as much flexibility as possible in how these grant appropriations can be used. With all due respect, Governor Riley and I believe we have a better feel for what it will take to prepare for and manage disasters in Alabama than our federal partners do, so please give us the flexibility to make the best decisions we can for our state along with the expectation that we will continue to receive funding for the important programs we have in place. As you can appreciate, it is tough to develop a plan or implement a program without being able to predict how, when, or if you will be able to fund it.

The heart of our state homeland security program lies in setting the right conditions that will ensure first responders and decision makers have the right information and the right

equipment available when they need it. Advances in situational awareness and asset management have experienced a sea change of improvements in Alabama during the past five years.

The ability for public safety officials to reliably communicate using radio networks is essential to gaining and maintaining a clear situational picture. Alabama has enhanced interoperable radio communications by upgrading existing systems and utilizing a common bridging platform to connect disparate radio systems across the state. Investing in one comprehensive statewide radio system with a common platform was not an affordable option for us. Instead, we leveraged technology by installing frequency bridges in each of Alabama's 67 counties. This allows local agencies using different frequency bands to communicate.

During a large-scale event where local interoperability can become overwhelmed, we have positioned eight regional communications vehicles throughout Alabama. In addition to bridging technology, these vehicles have satellite connectivity, Internet access, and streaming video cameras. If Alabama were to experience a total collapse of communications

infrastructure we can restore communication fairly quickly for first responders with portable antenna towers that accompany our regional communications vehicle, and by utilizing organic Alabama National Guard disaster communication capabilities.

This spring, Alabama conducted an experiment with the US Army attaching antennas and video cameras to a high altitude aerostat. This technology, for example, would give Governor Riley and other state and federal officials a panoramic picture of the Alabama coastline post hurricane, and allow us to direct assets and people where they are needed most.

In Alabama we have also developed an effective situational awareness framework in which to manage public/private sector programs and operational data. The program is called Virtual Alabama. It is an affordable visualization tool using Google Earth technology that employs the power of a secure Internet-based application to make a positive, immediate difference to first responders. The advantage to our first responder population is that Virtual Alabama is free for their use and inexpensive to the state. Local and state officials can layer and tailor secure infrastructure information about their jurisdictions and feed it into a broader database that will give

state and federal decision makers valuable and timely information.

With existing Geographic Information System (GIS) and orthophotographic data, we are able to transform massive amounts of useful information into a common operational picture. Examples of real-time applications include emergency evacuation routing, vehicle and asset tracking, critical infrastructure mapping, plume modeling, real-time sensor feeds, real-time streaming video, risk visualization, and post-event imagery placed alongside pre-event imagery.

Virtual Alabama was deemed fully operational by Governor Riley on November 1, 2007. Embedded in the program is the best imagery available for each of Alabama's 67 counties. Experts tell us it is the most comprehensive database in the country. To date, we have over 3000 subscribers using Virtual Alabama, representing over 550 local, state, and federal agencies and entities. I believe we have only scratched the surface on this emerging technology, and hope US DHS will elect to do more to help us exploit this affordable technology around the country.

Alabama has made remarkable strides toward improving information sharing and situational awareness within our criminal justice and public safety community. We've wisely invested our homeland security grant funding to upgrade outdated 1980s-era flat file computer architecture. Alabama's hard-wired terminal architecture has now been replaced with a real-time, 21st century Internet-based system available to all 850 statewide law enforcement agencies, law enforcement officials, and other emergency responders throughout the state. This improved capability also includes a homeland security reporting system for providing information from the "cop on the beat" to our information fusion capability.

We can take National Crime Information Center (NCIC) information and other criminal justice information and transmit it electronically to law enforcement officers with data terminals or any type of cell phone, Blackberry, or other personal digital assistant device. Additionally, this service is free of charge to local law enforcement and encourages their participation in sharing, gathering, and disseminating information.

Finally, Alabama is investing both public and private resources to promote citizen and community preparedness. First responders make up only one percent of the population in Alabama. Our volunteers active in disasters and faith-based organizations make up another one percent of our population. For us to succeed in managing a catastrophe, it will take the collective efforts of first responders, volunteers, and the remaining 98 percent of our citizens. In that regard, Alabama has an aggressive public outreach and citizen preparedness campaign called Ready Alabama which delivers the message for Alabamians to “Be informed, Be involved, Be Ready.” More information is available at www.readyalabama.org.

Ready Alabama is a portfolio of programs that encourages individuals to engage in citizen service by becoming volunteers in disaster preparedness and response, pursuing additional emergency training, creating family communications plans, building emergency supply kits, knowing evacuation measures, and other relevant information. Our goal is to get citizens to take personal responsibility before and after a disaster for their families and perhaps even their neighbors in a catastrophic event.

In a disaster, first responders will be decisively engaged assisting our population that is unable to care for themselves. We tell our citizens that if the able-bodied do not take personal responsibility they risk becoming part of the response problem and not part of the response solution, thus tying up the efforts of first responders to restore order and assist those who truly cannot help themselves.

In the weeks and months ahead, Alabama will continue to identify and develop new requirements and systems to better serve our citizens. However, we must be able to rely upon federal assistance via the family of state homeland security grants to further our efforts.

There is a real concern among the state homeland security directors around the country that there are people in the federal government who want to put the interests of the accountants ahead of the interests of our citizens. That would be a grave mistake. Collectively, we've made great strides since the attacks of 9/11 and Hurricane Katrina, but, as I stated out the outset, important work still remains.

Thank you again for the privilege of appearing before you today. I look forward to addressing any questions you may have.

Appendix 1: Federal Computer Week Article, dated June 2, 2008

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Alabama puts mashups to work

Virtual Alabama pulls data from various sources and overlays it on Google Earth

BY BEN BAIN

If stars fell on Alabama, as the old jazz standard recounts, first responders would know exactly where they landed thanks to a new virtual version of the state.

Virtual Alabama, created by the state's Homeland Security Department, uses Google's Earth Enterprise software to generate 3-D representations of geospatial and related data to help first responders and other government officials analyze complex situations in an intuitive fashion.

The system enables authorities to create data mashups by quickly pulling together information from an array of sources across the state's 67 counties, using one data layer or another, depending on the situation.

For example, in a natural disaster, authorities might need maps that show the

location of utilities and water, power and gas lines. Later, they might need to pull up high-resolution aerial photos and information on property values in the region. In other cases, they might pull in video from cameras along a highway or in schools.

And although stars falling on Alabama are only metaphorical, tornadoes and hurricanes are real threats. In such events, state officials need quick access to geospatial data so they can plan and coordinate their responses.

Officials also can use geospatial information to perform disaster assessments or prepare for disaster recovery. Virtual Alabama has additional uses in law enforce-

ment investigations and training.

"This has just really been a mass collaboration," said Chris Johnson, Virtual Alabama's project manager and vice president of geospatial technologies at the U.S. Space and Rocket Center in Alabama.

That's collaboration of the most grassroots kind.

Counties statewide gathered and contributed complete sets of high-resolution aerial photographs and geospatial data at their own expense, trusting that pooling data on every nook and cranny from Mobile to Athens would pay off.

Johnson and Jim Walker, Alabama's homeland security director, went county to county to

convince local authorities that the project would be worthwhile — and judging from initial results, the counties have gotten their money's worth.

The complete set of data would be worth \$40 million if sold in the private sector, Johnson said.

Walker's department paid about \$150,000 for the Google Earth Enterprise software, which enabled them to cull the data and make it useful. The state agency received grants from the federal Homeland Security Department to purchase Google Earth Fusion and Server software and some hardware.

"It's very inexpensive, and there is not a single homeland security director in the country that can't afford it," Walker said. "Everybody can afford it, but what's important is that you own it."

"You are not tied to the appropriations of the federal government for new products or tools," he added. "This is something that you can do and manage to ben-

"WHEN YOU SEE ENTERPRISE ALABAMA, YOU'VE REALLY SEEN AN ENTERPRISE 2.0 SOLUTION."

FRANK DIGIAMMARINO,
NATIONAL ACADEMY OF
PUBLIC ADMINISTRATION



Getting all the data together

Alabama homeland security officials say Virtual Alabama will benefit many sectors and agencies. Those benefits are expected to include:

- Common operating picture and situational awareness.
- Critical infrastructure mapping.
- Vehicle and asset tracking.
- Real-time sensor feeds.
- Visualization of risks.

— Ben Bain

efit your state without a lot of outside interference.”

States already have a significant investment in geospatial data, said Rob Painter, senior federal manager at Google. Google Earth simply helps them integrate and visualize the data so it's easier to analyze.

Virtual Alabama is “a great model when you think about information sharing in government and wanting to break the stovepipes,” Painter said, adding that Google Earth Enterprise users do not have to come back and buy another license every time they want to grant access to a different partnering agency.

More than 35 Alabama state agencies and 35 federal agencies already have access to the program.

Other states have also seen that value — the Virtual Alabama team has given presentations to 15 other states, and Louisiana has created a similar resource.

The federal DHS is interested and is working with Alabama's team to develop

a pilot program on a national scale, a DHS spokeswoman said.

Johnson said that as the potential value of the project became clear, the team saw an opportunity to make Virtual Al-

Frank DiGiammarino, vice president of strategic initiatives at NAPA, said Virtual Alabama demonstrates how quickly and easily people can use Web 2.0 collaboration tools.

“We look at it as kind of frame-bending event,” he said. “When you see enterprise Alabama, you've really seen an Enterprise 2.0 solution.”

Walker said he believes the state is using only about 10 percent of the technology's capability. More could be done in the areas of analytics and modeling.

Johnson said the Virtual Alabama team is focused on how to make the benefits of visualization available to people in the field.

Walker added that because disasters are by nature a local problem first, empowering frontline officers is important.

“99 percent of the heavy lifting in this country is done outside the Beltway,” he added. “There are good ideas that can actually work that aren't developed inside the Beltway.” ■

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ALABAMA HOMELAND SECURITY DEPARTMENT

abama a case study in collaboration, providing other states with best practices and showing them possibilities.

“If Alabama can do it, anyone else can do it,” Johnson said in explaining attitudes of others when they learn about the program.

Walker, speaking at a May 7 event sponsored by the National Academy of Public Administration (NAPA), said that although he is glad DHS is interested in the project, he wishes the department would move more quickly to adopt the technology.

From the pages of Government Computer News

Carriers ready wireless nets for storm season

With this year's hurricane season predicted to be more active than usual, major wireless carriers have been hardening networks in the vulnerable Southeast and Gulf Coast states.

Florida has been the focus of a lot of this activity because of its double-coast exposure to the Atlantic Ocean and Gulf of Mexico.

Verizon Wireless has spent \$150 million in the state during the past year — and Sprint Nextel has spent \$59 million — to add cell sites, generators and fuel storage facilities; position mobile emergency response equipment, and strengthen key switching facilities.

Mobile equipment can temporarily en-

hance network capacity in disaster areas by providing additional cellular sites or satellite links to accommodate emergency response teams arriving in stricken communities. Hardened networks would benefit first responders and other crews responding to an emergency.

New NOAA satellite will monitor sea level

The National Oceanic and Atmospheric Administration plans to launch a new satellite this month to monitor the rate of sea-level rise and measure the strength of hurricanes.

NASA's Jason-2/OSTM satellite employs a radar altimeter instrument to monitor 95 per-

cent of Earth's ice-free oceans every 10 days. It will enhance data collection that NOAA has been performing for the past 15 years. Earlier data shows the sea level is rising by 3.2 millimeters per year — a rate that is nearly twice that of the previous 100 years.

In addition to measuring changing sea levels, data from Jason-2/OSTM will be used to help predict hurricanes and tropical storms. NOAA will use the altimeter measurements to monitor ocean heat content, which can indicate an increase in the intensity of such storms. ■

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